Appl. No. 10/770,913
Amdt. dated September 3, 2004
Reply to Office Action of August 3, 2004

PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1   1-20.   Canceled

1   21.   (Previously Presented)   A system for use within a surface mount
2   production line having a conveyor for receiving a printed circuit board, and for moving the
3   printed circuit board through the surface mount production line, the system comprising:
4   a concurrent programming system containing first and second programming sites;
5   a pick and place system for picking up first and second electronic devices from
6   one or more tray shuttles, and for placing the first and second electronic devices within the first
7   and second programming sites, respectively, the first and second electronic devices being
8   programmable in a concurrent manner and independent of each other; and
9   a central control unit for communicating with the conveyor, the concurrent
10 programming system, and the pick and place system, the central control unit directing the
11 conveyor to move the printed circuit board permitting the pick and place system to place the first
12 and second electronic devices on the printed circuit board after the devices are programmed.

1   22.   (Previously Presented)   The system of claim 21 wherein the
2   concurrent programming system further comprises a controller for each of the first and second
3   programming sites for independently programming each of the first and second programming
4   sites.

1   23.   (Previously Presented)   The system of claim 21 further comprising
2   tracks or rails enabling movement of the pick and place device within the system.

1   24.   (Previously Presented)   The system of claim 21 further comprising
2   one or more sensors for detecting when the conveyor delivers a printed circuit board to the
3   system.

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1   25.   (Previously Presented)   The system of claim 21 further comprising

2   four parallel asynchronous processes upon which operations of the system depend.

1   26.   (Previously Presented)   The system of claim 21 wherein the pick and

2   place device includes self-teaching capability for determining the precise locations at which to

3   pick and place the first and second programmable devices.

1   27.   (Previously Presented)   The system of claim 22 wherein the pick and

2   place device further comprises a controller for servicing requests from the concurrent

3   programming system and the conveyor.

1   28.   (Previously Presented)   The system of claim 27 wherein the system

2   making a request provides the location from which to pick up a device.

1   29.   (Previously Presented)   The system of claim 21 further comprising

2   employing fiducial techniques to determine the location at which the programmable device is to

3   be placed.

1   30-38.   (Canceled)